

In the Claims

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A method, suitable for stand off analysis of a sample ~~(2)~~ comprising one or more chemical and/or biological warfare agents of low volatility, said method comprising:
 - (i) using an excitation means ~~(6)~~ to vaporise the sample thereby producing a vapour plume ~~(10)~~ of molecular species; and
 - (ii) using an analytical means ~~(12, 18)~~ to analyse the molecular species within the vapour plume ~~(10)~~ wherein the analytical means analyses the molecular emission spectra of the vapour plume and is provided with means ~~(14)~~ to enable it to receive said spectra for stand off analysis.
2. (Currently Amended) A method according to Claim 1 wherein the excitation means ~~(6)~~ is a laser.
3. (Original) A method according to Claim 2 wherein the laser is operated at a fixed wavelength.
4. (Currently Amended) A method according to Claim 2 ~~or Claim 3~~ wherein the laser has a power of greater than 2 W, preferably greater than 5 W, and more preferably greater than 10 W.
5. (Currently Amended) A method according to ~~any of Claims~~ Claim 2 to 4 wherein the laser has a power of less than 150 W, preferably less than 50 W, more preferably less than 20 W.

6. (Currently Amended) A method according to ~~any of Claims~~ Claim 2 to ~~5~~ wherein the laser is operated as continuous laser beam.

7. (Currently Amended) A method according to ~~any of Claims~~ Claim 2 to ~~6~~ wherein the laser is a carbon dioxide laser.

8. (Currently Amended) A method according to ~~any of Claims~~ Claim 1 to ~~7~~ wherein the method comprises the use of only a single excitation means ~~(6)~~.

9. (Currently Amended) A method according to ~~any of Claims~~ Claim 1 to ~~8~~ wherein the vapour plume ~~(10)~~ is hotter than the surrounding atmosphere by at least 0.1K.

10. (Original) A method according to Claim 9 wherein the vapour plume is hotter than the surrounding atmosphere by 1K.

11. (Original) A method according to Claim 10 wherein the vapour plume is hotter than the surrounding atmosphere by 5K.

12. (Currently Amended) A method according to ~~any of Claims~~ Claim 9 to ~~11~~ wherein the analytical means ~~(12, 18)~~ is an infrared spectrometer, preferably a Fourier transform infrared spectrometer.

13. (Currently Amended) A kit suitable for stand off analysis of a sample comprising one or more chemical and/or biological warfare agents of low volatility, said kit comprising:

- (i) an excitation means ~~(6)~~ arranged such that it can be used to vaporise the sample thereby producing a vapour plume ~~(10)~~ of molecular species;
- (ii) an analytical means ~~(12, 18)~~ arranged to analyse the emission spectra of the molecular species within the vapor plume; and

- (iii) means ~~(14)~~ associated with the analytical means ~~(12, 18)~~ to enable said analytical means to receive the emission spectra from the vapour plume.

14. (Currently Amended) An apparatus suitable for stand off analysis of a sample comprising one or more chemical and/or biological warfare agents of low volatility, said apparatus comprising:

- (i) an excitation means ~~(6)~~ arranged such that it can be used to vaporise the sample thereby producing a vapour plume ~~(10)~~ of molecular species;
- (ii) an analytical means ~~(12, 18)~~ arranged to analyse the emission spectra of the molecular species within the vapour plume; and
- (iii) means ~~(14)~~ associated with the analytical means ~~(12, 18)~~ to enable said analytical means to receive the emission spectra from the vapour plume.